OPERATOR'S MANUAL

FOR

AR-24™ SERIES PISTOLS

ArmaLite Incorporated
Box 299
Geneseo Illinois U.S.A. 61254
309-944-6939
ArmaLite.com
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This book provides instructions on the operation and operator maintenance of the ArmaLite® AR-24 family of pistols. Read and understand it carefully before you use the pistol.

The AR-24 is a rugged, reliable locked breach, high capacity handgun featuring recoil operation and a double action trigger mechanism. It is ideally suited to military, police, and security uses. It offers excellent accuracy, excellent feel and natural pointing, and long life. It features multiple safety devices:

1. Manual safety
2. Automatic firing pin block safety. The pistol cannot fire if the trigger isn't pulled even if the manual safety is not engaged.
3. Inertial firing pin. Even when the manual safety is off and the hammer down on a loaded chamber, the firing pin cannot contact the primer.
4. Loaded chamber indicator. The extractor is pressed out by a cartridge in the chamber, and a painted groove in the extractor warns that a cartridge is present in the chamber.
5. Automatic disconnector to prevent firing unless the slide and barrel are fully locked together.
6. Half-cock notch on hammer to help prevent firing if the hammer or pistol are dropped.

THEORY OF OPERATION. When fired, propellant gasses force the bullet out of the bore. An equal rearward thrust forces the locked slide and the barrel to the rear. As they travel rearward, a camming slot through the bottom of the moving barrel contacts the fixed shaft of the slide stop and the interaction forces the rear of the barrel downward to unlock the barrel from the slide. The barrel is halted by contact with the frame but the slide continues to the rear under its momentum, extracts the cartridge from the chamber, and pushes the hammer to the rear so that it may be caught by the sear. Rearward movement of the slide allows the next cartridge in the magazine to rise into the path of the slide's breech face. The cartridge case moving rearward with the slide strikes a fixed ejector, and then pivots about the extractor and out of the ejection port. Rearward movement of the slide is halted by the frame, and the driving spring, which was compressed during rearward movement of the slide, expands and forces the slide forward. The breech face of the forward-moving slide strikes the rear of the top cartridge, forcing it forward, up the feed ramp and into the chamber until the extractor snaps over the rim of the cartridge case. The slide strikes the barrel to carry it forward. As the cam slot of the barrel passes around the shaft of the slide stop an angled surface strikes the shaft and the barrel is forced upward. This allows the locking lugs of the barrel to engage matching locking slots in the slide.

The AR-24 is a high quality pistol produced with advanced manufacturing techniques and of the highest quality materials. The pistol's construction features extensive use of forgings, and extensively machined parts. In a day when low cost manufacturing techniques are emphasized almost everywhere, ArmaLite's pistols hearken back to a day when no cost was spared to build tough, beautiful firearms that would serve well for generations.

1. SAFETY FIRST! IT'S <u>YOUR</u> RESPONSIBILITY!

ACCIDENT (Ak'si dent) N
1. An unintentional or unexpected happening that is undesirable or unfortunate, esp. one resulting in injury, damage, harm or loss.

** Always keep the muzzle pointed in a safe direction.
* Never point your pistol at anything that you do no intend to shoot. You can't shoot what you aren't pointed at.
* Keep your fingers off the trigger and out of the trigger guard until you are aiming at your target and ready to shoot.
* Always keep the safety on the safe position, especially when the pistol is loaded and cocked, until you are ready to fire.
* Always keep and carry your pistol with an empty chamber until you intend to shoot, so that your pistol cannot be fired unintentionally. Firearms should be unloaded when not actually in use…
**** But treat every gun as if it is loaded…AT ALL TIMES.***
* Be sure of your target and backstop before you shoot. Ask yourself what your bullet will hit if it misses or goes through the target.
* Never shoot at hard, flat surfaces or water…bullets can ricochet.
* Wear hearing protection when shooting.
* Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to be associated with birth defects, reproductive harm, and other serious injury. Have adequate ventilation at all times and wash hands after handling.
* Be sure that you barrel is clear of obstructions, including excessive oil and grease, before shooting.
* Do not alter or modify your pistol.
* Do not try to change your pistol's trigger pull, because alterations of trigger pull usually affect sear engagement and might cause accidental firing.
* Store guns and ammunition separately, and beyond children's reach.

IN CASE OF MALFUNCTION STOP. REVIEW THIS MANUAL TO FIND AND CLEAR THE PROBLEM. IF YOU CANNOT RESOLVE IT, CONTACT ARMALITE

IF YOU KNOW NOTHING ELSE ABOUT YOUR PISTOL,, YOU MUST KNOW HOW TO <u>UNLOAD IT</u> AND <u>CLEAR IT</u> TO MAKE IT SAFE.

2. UNLOADING AND CLEARING THE PISTOL:

Keep the pistol cleared when not in use.

1. **Place safety lever (1) on SAFE.**

NOTE: If the pistol is not cocked, the lever cannot be pointed toward SAFE. See photo 1.

2. **Remove the magazine** by pressing the magazine catch and pulling the magazine down and out of the receiver. See photo 2.

3. **Extract the cartridge** (if any) from the chamber. To extract a cartridge from the chamber, pull the slide fully to the rear. If there is a cartridge in the chamber it should be pulled out and ejected from the pistol. See photo 3**.**

4. **Look into the chamber to ensure that it contains no cartridge.** See photo 4.

5. To **lock the slide open**, press the bottom of the slide catch upward while holding the slide to the rear, and then allow the slide to move forward until the slide stop holds it. See photo 5.

<u>CAUTION!</u>
***<u>DO NOT REVERSE THE STEPS IN CLEARING YOUR PISTOL.</u>* IF YOU CLEAR THE CHAMBER <u>BEFORE</u> REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE THEN IMMEDIATELY CHAMBER ANOTHER FROM THE MAGAZINE! THE PISTOL WILL STILL BE LOADED!**

3. BEFORE-OPERATION FUNCTION AND SAFETY CHECK

WARNING

Make sure that the magazine is removed and the chamber is clear to assure the pistol is unloaded.

Carefully inspect the barrel to assure that it is not blocked.

1. Cock the hammer. Place the safety on SAFE. Squeeze the trigger. *The trigger should not fall.* See picture 6.

2. Place the safety on FIRE. Squeeze the trigger and hold the trigger to the rear; *the hammer should fall*. The weight of the trigger pull should be about 5 pounds. Without releasing the trigger, pull the slide to the rear and release it. Release the trigger. *You should hear a click as you release the trigger*. This confirms that the pistol's disconnector is working. Squeeze again; *the hammer should fall*. See picture 7.

If the pistol passes both tests, it is safe to fire. If not, contact ArmaLite for help.

4. OPERATING PROCEDURES

4.1. LOADING THE AR-24® MAGAZINE

Start with high quality ammunition loaded to SAAMI (Sporting Arms and Ammunition Manufacturer's Institute) or CIP (International Proof Commission for Firearms) standards. Avoid high pressure, corroded, or corrosively primed surplus ammunition.

ArmaLite disclaims any and all responsibility for any damage or injury whatsoever occuring in connection with or as a result of the use of faulty, hand loaded, remanufactured, or other cartridges for which this firearm was not designed.

Insert each cartridge by positioning it at the front of the lips at the top of the magazine, with the bullet tip pointing forward, and pressing it straight down so that it may be pressed straight back into the magazine until it stops. Repeat until the magazine is full. See photo 8.

Take it easy with your magazines. Keep them clean, dry, and don't pound them into the pistol. It looks great in the movies but can damage them. Insert the magazine fully into the pistol then tug downward on it to assure it's securely locked into the pistol.

4.2. LOADING THE AR-24 PISTOL AND CHAMBERING THE FIRST ROUND

WARNING! Always point the muzzle in a safe direction.

Place the safety on SAFE. Pull the slide rearward, and lock it to the rear by pressing the bottom of the slide stop up, then ease the slide forward until it stops on the raised slide catch. Check to see that the chamber is clear and the bore is not blocked. See photo 4.

Push the magazine up into the receiver until the magazine catch engages and holds the magazine. See photo 9. NEVER pound the magazine into the receiver.

The slide will automatically lock to the rear when the last round in a magazine is fired and the pistol is empty. See photo 10. Reload by pressing the magazine catch to remove the empty magazine, insert a loaded magazine, and press the top of the slide catch down or pull the slide to the rear and release it (preferred). See photo 11.

Never "ride" the slide forward. Let it spring forward at full speed.

4.3. FIRING

Aim at the target. Set the safety to FIRE, grip the pistol firmly, and pull the trigger straight to the rear, increasing the pressure until the shot fires. See photo 12.

Note: Gripping the pistol extremely loosely when firing can cause the pistol slide to return to battery slowly or weakly. This is a shooter error, not a pistol malfunction.

Keep the safety on SAFE until you are ready to shoot. Unload and clear your pistol before leaving the firing position.

WARNING

The slide of this pistol moves to the rear forcefully. Assure that no part of your body is close enough to the slide to be injured. Shooters must specifically avoid placing a hand or thumb behind the slide, or holding the pistol close to the face during sighting.

The empty cartridge case is ejected from the pistol very forcefully, and is hot. Care must be taken to assure that it does not strike another person or rebound from a surface in a way that can cause damage or injury.

4.4. UNLOAD AND CLEAR THE PISTOL AFTER FIRING. See Section 2 above..

CAUTION!
***DO NOT REVERSE THE STEPS IN CLEARING YOUR PISTOL.* IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE THEN IMMEDIATELY CHAMBER ANOTHER FROM THE MAGAZINE! THE PISTOL WILL STILL BE LOADED!**

IN CASE OF MALFUNCTION, KEEP THE PISTOL POINTED IN A SAFE DIRECTION, PLACE THE SAFETY TO THE SAFE POSTION, AND UNLOAD THE PISTOL.

5. ADJUSTING SIGHTS

Front sights are of two types: permanently fixed and dovetailed. Dovetailed sights may be equipped with a set screw to allow it to be removed and replaced, or to allow shifting the strike of the bullet. There are no clicks or reference lines, so adjustments must be made by trial and error.

Adjusting rear sights

Adjustable sights: Fire a five shot group at the target. ArmaLite recommends a "center hold" on the target, especially for pistols to be used by police, military, and security users.

Using a fine screwdriver suited to the small size of the adjustment screws, shift the rear sight in the same direction you wish the bullet strike to move.

APPROXIMATE IMPACT SHIFT PER CLICK OF ADJUSTABLE REAR SIGHT:

Windage: approximately .**??** inch at 25 meters.
Elevation: approximately .**??** inch at 25 meters.

Non-adjustable rear sight. Like the dovetailed front sights, non-adjustable rear sights may be equipped with a set screw to allow it to be removed and replaced, or to allow shifting the strike of the bullet. There are no clicks or reference lines, so adjustments must be made by trial and error.

6. MAINTENANCE PROCEDURES:

FIELD STRIPPING THE PISTOL FOR CLEANING

CLEAR THE PISTOL FIRST! Many firearm accidents occur because the pistol is not unloaded properly before cleaning. See Section 2, above.

IMPORTANT: Put the safety on SAFE. Remove the magazine, THEN pull back the slide (1) and check the chamber.

REMOVE THE SLIDE STOP. Draw the slide to the rear until the dots on the left rear sides of the slide and frame are aligned one above the other. This positions the slide stop for removal. See photo 13. As an alternative method to that shown, hold the slide and frame of the pistol by placing the thumb of the RIGHT hand through the trigger guard aligned by grasping it through the trigger guard and holding the slide in position by placing your fingers above the slide. See photo 14. Press the slide stop down with the left thumb, then press the exposed round tip of the slide stop (protruding from the right side of the pistol) into the slide to frame to start the slide stop out of the frame to the left side. You may need to wiggle the slide stop up and down while pulling it out. See photo 15.

REMOVE THE SLIDE FROM THE FRAME. Ease the slide forward and off the frame. See photo 16.

REMOVE THE BARREL FROM THE SLIDE. With the slide held upside down, ease the recoil spring forward slightly, then up to draw it rearward and out of its seat in the slide. See photos 17 and 18.

DISASSEMBLE THE MAGAZINE. Unload the magazine by pressing remaining cartridges forward and out of the lips of the magazine. See photo 19. Using a punch or

other small rod, press the floorplate retainer in (photo 20) to allow the floorplate to slide forward and off the magazine. See photo 21. Ease the floorplate retainer, magazine spring, and follower out of the magazine. See photo 22.

This completes disassembly for normal cleaning. No further disassembly is required.

CLEANING THE PISTOL

Proper cleaning and lubrication is essential to the reliable function, corrosion resistance, and accuracy of the AR-24. Clean the pistol each time it is fired (especially the bore, which loses protective oils during firing), anytime it becomes dirty by exposure to wind-borne sand or soil or dropping it, and before storing it for long periods.

CLEANING SOLVENTS AND LUBRICANTS

Proper maintenance of the AR-24 requires only a good quality light lubricant and a high quality cleaning solvent like Hoppes no. 9, which removes metal fouling from the bore excellently.

If special firearm cleaners and lubricants aren't available, a standard automotive carbon removing compound (CRC) serves as an excellent cleaner, and lightweight motor oil (i.e. SAE 5W20 or similar) serves as an excellent lubricant.

In addition to cleaning solvents and lubricants, the basic cleaning equipment you will need includes a cleaning rod, brass bore brush cleaning patches, brush, and the most important item: a lint-free cloth.

CLEANING THE BARREL

Use a bore brush to remove heavy carbon buildup. Scrub the barrel inside with a brush dampened with cleaning solvent to remove most of the dirt and powder fouling. Let the solvent sit and work to loosen fouling. See photo 23.

Install a cleaning patch to the cleaning rod. Apply cleaning solvent to the swab, then run it through the chamber and out the bore several times to scrub and wet the bore.. To remove carbon build up, let the solvent sit, then wipe clean. See photo 24

Wipe the bore dry by running clean swabs all the way through from the chamber and out the muzzle.

Lightly lubricate the bore and chamber with a lubricated swab, and the outer surfaces as well. .

Warning: Much old and/or surplus ammunition is primed with corrosive mixtures that leave invisible salts in the bore that will draw moisture from the air and promote rust, especially in the bore. Avoid firing this ammunition. If you do use it, use warm soapy

water or military-grade rifle bore cleaner that can dissolve and remove these salts, then lubricate well. Repeat each day for three days. Assure that all nearby steel surfaces are similarly cleaned.

SLIDE ASSEMBLY

Wipe the slide assembly inside and out with a cloth or brush dampened with cleaning solvent to remove most of the dirt and powder fouling. Take care to clean the rails especially well. See photo 25

Lightly lubricate the slide assembly with light lubricant, taking particular care to lubricate any sliding or working surfaces.

FRAME ASSEMBLY

Wipe the frame inside and out with a patch or cloth dampened with cleaning solvent to remove most of the dirt and powder fouling. Take care to clean the rails especially well.

Lightly lubricate the frame assembly with light lubricant, taking particular care to lubricate any sliding or working surfaces.

MAGAZINE

The magazine is one of the most important parts of a pistol… and one of the most neglected. Failure to keep the magazine cleaned and properly lubricated will result in early and frequent malfunctions. It should be cleaned and lubricated whenever contaminated inside with water, sand, or dirt.

Wipe the magazine inside and out with a patch or cloth dampened with cleaning solvent to remove most of the dirt and powder fouling. Lightly lubricate the magazine. The magazine is ready for reassembly.

WARNING

DO NOT BLOCK THE BARREL WITH HEAVY PRESERVATIVES. HIGH PRESSURES AND FAILURE OF THE PISTOL CAN OCCUR ON FIRING. ALWAYS ASSURE THAT OLD GREASE OR OIL IS REMOVED FROM THE PISTOL BEFORE FIRING.

REASSEMBLING THE MAGAZINE AND PISTOL.

Reassemble the pistol by simply reversing the order of disassembly steps.

MAINTAINING THE CAMOUFLAGE LAYER (IF PRESENT). Clean the baked on finish of the AR-24 PISTOL using a cloth moistened with mild soapy water. Wipe with a clean camp rag. Bore cleaner may be used to remove stubborn powder stains. Use light oil to lubricate and protect any steel surfaces that have been cleaned.

7. TROUBLE SHOOTING

PROBLEM	CHECK FOR	WHAT TO DO
WON'T FEED.	Dirty, corroded, or reloaded ammunition.	Remove and discard.
	Dirty or defective magazine.	Clean and lubricate or replace.
	Magazine not fully seated.	Reinsert more forcefully
	Short recoil.	See below.
WON'T CHAMBER.	Dirty corroded of defective ammunition.	Remove and discard.
	Fouled pistol.	Clean and lubricate.
WON'T LOCK	Dirt, corrosion, or carbon buildup in locking lugs.	Clean lugs.
	Fouled pistol.	Clean and lubricate.
	Dirty slide.	Clean.
	Burred or broken slide	Contact ArmaLite.
WON'T FIRE	Safety lever on safe position	Set safety to fire position
	Oil or fouling in slide.	Clean.
	Defective ammunition.	Remove and discard.
	Fouling on firing pin Or firing pin recess.	Clean.
	SLIDE not fully locked.	Unload, clean pistol.
WON'T EXTRACT.	Broken extractor spring.	Replace.
	Dirty, corroded, or reloaded ammunition.	Remove and discard.
	Carbon in chamber.	Clean chamber.

	Frozen or worn extractor.	Remove and clean.
	Rusty chamber.	Clean or replace barrel.
	Restricted movement of slide	Clean and lubricate.
SHORT RECOIL	Weak or reloaded ammunition.	Replace with factory fresh ammunition,
	Fouled pistol.	Clean and lubricate.
	Improper lubrication.	Lubricate generously.
SLIDE FAILS TO LOCK OPEN AFTER LAST ROUND.	. Dirty or corroded slide catch.	Clean or replace.
	Defective magazine.	Replace
SELECTOR LEVER BINDS.	Needs oil.	Lubricate.
	Dirt or sand under trigger.	Clean.
		NOTE: If this procedure fails, use a cleaning rod to push slide fully to the rear through the ejection port.

8. OBTAINING SUPPORT AND SERVICE.

ArmaLite provides a full range of services in support of your pistol. Contact ArmaLite at 309-944-6939.